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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,707	10/24/2003	Kenny K. Chinn	AB-123U1 / 585-0026US-C	9782
70573 7590 07/11/2007 Wong, Cabello, Lutsch, Rutherford & Brucculer L.L.P 20333 SH 249 Suite 600 Houston, TX 77070			EXAMINER CAZAN, LIVIUS RADU	
			ART UNIT 3729	PAPER NUMBER
			MAIL DATE 07/11/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/692,707

Applicant(s)

CHINN ET AL.

Examiner

Livius R. Cazan

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. The amendment filed on 4/30/2007 has been fully considered and made of record.

#### ***Claim Rejections - 35 USC § 102***

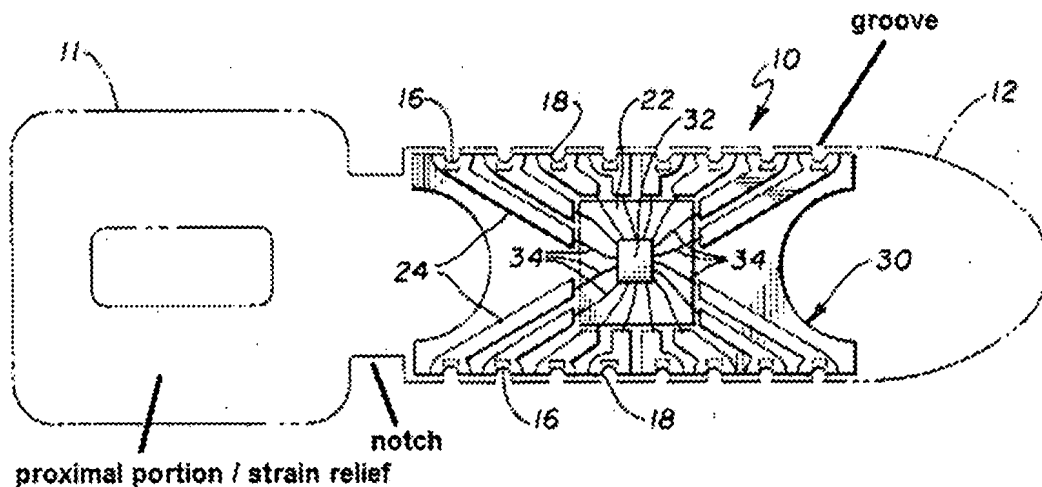
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. **Claims 1, 3, 4, and 7-14** are rejected under 35 U.S.C. 102(b) as being anticipated by Flies (US4578573 to Flies et al.).

**Regarding claims 1 and 3**, Flies discloses positioning a plurality of electrical contacts (16, Fig. 9) in a pin-shaped mold (see col. 4, Ins. 46-56; the mold is clearly pin-shaped since the resulting connector pin is pin-shaped; see Fig. 9), arranging the plurality of electrical contacts in at least two rows (see Fig. 9), providing a plurality of conducting wires (34, Fig. 9), each having an end, electrically connecting the end of at least one conducting wire to each of the electrical contacts via a printed circuit board (20, Fig. 7), wherein the electrical contacts are coupled to an edge of the printed circuit board, and introducing insulating material (see col. 4, Ins. 29-35) into the mold to form a pin with electrical contacts positioned in at least two rows along the pin.

**Regarding claim 4**, several circuit boards are formed together such that the contacts are temporarily held together in an array, with bridging sections of circuit board between the contacts (see Fig. 7). The boards are separated and the bridging sections are cut so as to obtain individual boards (see Fig. 7; see col. 39-4).

**Regarding claims 7 and 8**, at least one groove (18, Fig. 9) and one notch are formed in the pin (see figure below).



**Regarding claim 9**, it is deemed that the structure into which the connector pin is inserted must comprise at least one external lead.

**Regarding claims 10 and 11**, the pin includes a proximal portion and a distal portion, the proximal portion including a means for securely holding the pin and a strain relief (see image above). In particular, the increased height of the proximal portion allows for strain relief during rotation of the connector pin and allows for easier holding of the pin.

**Regarding claims 12 and 13**, see Figs. 3-6. The recessed portion of each side of the pin forms a channel, which would cooperate with a corresponding portion of a mating connector, thus aligning and assuring proper orientation of the pin during use.

**Regarding claim 14**, the contacts (16, Fig. 6) establish an electrical connection with a corresponding device having a mating connector (see col. 1 for various uses).

***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over Flies in view of Spooner (US3396461 to Spooner et al.).

Flies discloses substantially the same invention as the Applicant, except for the contacts comprising one of the metals/alloys recited in claim 5.

Spooner teaches that it is known to provide a precious metal layer such as platinum on the surface of contacts to provide wear resistance and insure low contact resistance (see col. 1, lns. 55-65).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the contacts of Flies with such a platinum layer for the same advantages discussed above.

6. **Claims 6 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Flies in view of Eisenreich (US3673467).

Flies discloses substantially the same invention as the Applicant, except for the contacts comprising contact rows that are not straight, and the connector pin being configured to provide electrical connection to one of the structures recited in claim 9 (to the extent Applicant disagrees that Flies inherently must have at least one external lead as discussed above).

Eisenreich discloses both straight and non-straight rows of contacts (see Figs. 3 and 4. Eisenreich also discloses external leads (such as 29a, 29b, 31a, and 31b, Fig. 1), to which the connector is electrically connected.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to arrange the contacts of Flies in non-straight rows, since this arrangement is an art-recognized equivalent arrangement, and therefore constitutes a mere design consideration. Further, it would have been obvious to provide the invention of Flies with such external leads, for providing electrical signals and/or power to the connector pin.

### ***Response to Arguments***

7. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 3729


extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Livius R. Cazan whose telephone number is (571) 272-8032. The examiner can normally be reached on 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (571)272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LRC/ 06/26/2007



**A. DEXTER TUGBANG**  
**PRIMARY EXAMINER**